

REMARKS/ARGUMENTS

In the specification, the application has been amended in form the abstract of the disclosure. The abstract is in narrative form and the single paragraph on a separate sheet is within the range of 50 to 150 words. Thus, the specification objection can be withdrawn.

Claims 1-68 remain in this application. Claims 42 and 45 have been amended. No Claims are canceled.

In Claims 42 and 45, the mistyped words "transformation step" should be amended to -- transforming step --.

Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action and, when coupled with the above amendments, are believed to render all claims at issue patentably distinguishable over the cited references.

Applicants respectfully requests reconsideration in light of the following remarks.

SPECIFICATION OBJECTION

With respect to Page 2 of the Office Action, the Examiner objected to the Abstract.

The Examiner objected to the Abstract for repeating information given in the title. Accordingly, Applicant has now removed the redundant title on the Abstract page and incorporated other amendments to both clarify and make more concise the Abstract. It is believed that the Examiner's formal concerns as to the Specification are thereby obviated.

CLAIM REJECTION-35 U.S.C. SECTION 102 (b)

With respect to Page 2 through 4 of the Office Action, the Examiner rejected Claims 42-46 under 35 U.S.C. 102 (b) as being anticipated by U.S. Patent No. 5,729,251 to Nakashima.

The Examiner alleges that Nakashima ('251) teaches a processing method of a sub-circuit with electromagnetic induction in the motionless-image processing system.

Nakashima ('251) disclosed the electromagnetic stylus pen is provided with a CCD circuit and microphone as the information collection section. The signal generation section generates a signal by the use of electromagnetic signals (col. 14, line 67-col. 15, and line 4). Nakashima ('251) disclosed the image input through a lens is optically captured, and thus the **"captured image is converted into an electric signal by means of the CCD circuit"**. In the meantime, the **"sound is converted into an electric signal by the microphone"**. The electric signals converted by the CCD circuit and the microphone are input to an electric circuit (col. 15, lines 4-10). The electric circuit has an analog-to-digital function and memory, and hence the **image**

information or **“sound information”** converted into the electric signal is subjected to analog-to-digital conversion, whereby the information is digitized and further coded (col. 15, lines 11-15). As a result of the previously mentioned processing, the **“collected image and sound information”** items are output as the electromagnetic signal (col. 15, lines 28-30).

Nakashima ('251) also disclosed the amplifying sections parallel amplify a switched signal by means of amplifiers connected in parallel. **The signal amplified by the amplifying sections is subjected to waveform-shaping by means of filter/signal** hold circuit sections which have filter/signal hold circuits connected corresponding to the amplifiers connected in parallel (col. 18, lines 16-20).

As claim 42 recites, the processing method comprises among its features, **“performing a scanning step to receive electromagnetic wave signal”**; **“performing a magnifying/filtering step** to generate a signal with a specific frequency”; ...and “receiving said signal with said specific frequency and performing a frequency-calculating step to **generate a clock signal**”; and “transmitting said absolute coordinate and said pressure value to **perform an image-mixing function.**”

To compare Nakashima ('251) and claim 42, a notable difference is that Nakashima ('251) did not disclose such steps as “performing a scanning step...” and “performing a magnifying/filtering step...”. Nakashima ('251) did not disclose the signal is performed to magnify. According to the disclosure of Nakashima ('251), the signal differs from the claim 42. Nakashima ('251) discloses **the signal is**

combined by two type signals, which are "image" and "sound".

However, as regards claim 42, the **electromagnetic wave signal is converted from the "image"**, but not include the sound. Even the limitation is not described in the claim 42, but the component of the signal is different between Nakashima ('251) and claim 42. Therefore, Nakashima ('251) **cannot teach the image and sound signal can mix to perform an image-mixing function.** Thus, Nakashima ('251) cannot anticipate the claim 42. The Examiner's rejection can be withdrawn.

CLAIM REJECTION-35 U.S.C. SECTION 103 (a)

With respect to Page 4 through Page 22 of the Office Action, the Examiner rejected Claims 1, 2, and 4-8 as being unpatentable over Nichani in view of Nakashima ('251); Claims 3, 9, and 10 were rejected as being unpatentable over Nachani in view of Nakashima ('251) as applied to claims 1, 2, and 4-8, above, and further in view of Richey ('576); Claims 11-13, 17-18, and 23 were rejected as being unpatentable over Mager et al ('093) in view of Wu et al ('504); Claims 14, 16, 24, and 26-29 were rejected as being unpatentable over Mager et al ('093) in view of Wu et al ('504) as applied to claims 11-13, 17-18, and 23 above, and further in view of Richey ('576); Claims 15, 25, and 29 were rejected as being unpatentable over Mager et al ('093) in view of Wu et al ('504) as applied to claims 11-13, 17-18, and 23 above, and further in view of Nanba ('870); Claims 19-22 were rejected as being unpatentable over Mager et al ('093) in view of Wu et al ('504) as applied to claims 11-13, 17-18, and 23 above, and further in view of Fujioka ('424); Claims 30-41 were rejected as being unpatentable over

Nanba ('870) in view of Richey ('576); Claims 47, 49, 52, 55, 58-63, and 64-68 were rejected as being unpatentable over Nakashima ('251) in view of Dunton et al ('242) and Masuda et al ('983); and Claims 48, 50-51, 53-54, and 56-57 were rejected as being unpatentable over Nakashima ('251) in view of Dunton et al ('242) and Masuda et al ('983) as applied to claims 47, 49, 52, 55, 58-63, and 66-68, above, and further in view of Nanba ('870).

The Examiner is of the opinion that Nichani teaches an image processing system. Nichani disclosed that a **first digital image (reflected-light image) is captured from first channel light reflected off the first external surface of the semi-opaque enclosure**. More specifically, the first digital image may be a reflected-light image formed with front lighting impinging on a front side of the rigid semi-opaque enclosure. A **second digital image (transmitted-light image) is captured from second channel light navigating the object inside the enclosure**. More specifically, the second digital image may be a transmitted-light image formed with back lighting, which is directed onto a back side of the semi-opaque enclosure and thus forms a silhouette image of the object inside the enclosure (col. 4, lines 49-60).

Nichani also disclosed the difference image is formed substantially devoid information representing the visible pattern on the first external surface, by subtracting one of the first and second digital images from the other (col. 4, lines 62-65).

Comparing the combination of the disclosure of Nichani in view

of Nakashima and claim 1, a notable difference pertains to the first digital image and the second digital image. In the disclosure of Nichani, the first digital image signal is formed from the reflected-light system, and the second digital image signal is formed from the transmitted-light system. In the disclosure of Nakashima, the electromagnetic induction means is provided for generating and transmitting a second image signal. Nevertheless, the combination of the Nichani in view of Nakashima **did not point out the sound signal that can be replaced by the second image signal**, in which the second image signal is generated from the electromagnetic induction means, and then converted into the electric signal as Nakashima disclosed. Thus, the rejection for Nichani in view of Nakashima cannot achieve the claim, and the rejection can be traversed.

In addition, Examiner is of the opinion that Nichani fails to teach image-transmitting means that receives image data by way of using communication. Examiner alleges that the disclosure of Ritchey teaches image-transmitting means that receives image data by way of using communication.

Ritchey disclosed an improved panoramic image based virtual reality/telepresence audio-visual system and method includes panoramic three-dimensional input devices, a computer processor, and a panoramic audio-visual output device. Ritchey also disclosed the system may comprises a 3-D light pen, optical scanner, image recognition system, sonar, ultrasonic, laser, laser scanner, radar, laser radar (LADAR) system or system (col. 10, line 65- col. 11, line 1). Additionally, mathematical formula defining the shape of the subject

may be entered by an operator via a keyboard. The 3-D data is transmitted from the system to a computer processing system where it is operated upon (col. 11, lines 1-4).

Comparing the combination of the disclosure of Nichani in view of Nakashima, and further in view of Ritchey and the claims, according to prior reason for the combination of the disclosure of Nichani in view of Nakashima, the combination of the disclosure of Nichani in view of Nakashima cannot achieve the claim 1, and the claims 3, 9, and 10 depending from claim 1. Although the disclosure of Ritchey disclosed the data is transmitted from the system to a computer processing system where it is operated upon. The 3-D data representing the subject is called a wireframe, which is a 3-D line and point computer generated rendering of a subject. As much as claim 1 is not disclosed by the combination of Nichani in view of Nakashima, the rejection based on Nichani in view of Nakashima, and further in view of Ritchey also cannot achieve the claim. Therefore, the rejection can be traversed.

Moreover, the Examiner alleges that Mager et al in view of Wu et al can achieve the present invention. Examiner is of the opinion that Mager et al teaches an image sensing sub-circuit, said image sensing sub-circuit, can catch image by transduction of optical radiation of the image data to generate a first image signal. However, Mager fails to teach a motionless image processing system having an image transmitting sub-circuit that is coupled with the external computer to communicate image data; an electromagnetic induction sub-circuit for receiving the electromagnetic wave signal; as noted at page 7 through

of page 8 of the office action. In addition, Wu et al teaches a motion less image processing system, an image transmitting sub-circuit that is coupled with the external computer to communicate image data; ... as noted in page 8 of the office action.

Mager et al disclosed an optical method of measuring nanometeric distances between objects, such as a transducing head and a magnetic storage disk.

WU et al disclosed an apparatus for tracing the locations of a line segment moving across a planar tablet. The image scanning system is one which during a scanning operation, captures visually perceptible information of the scanned object together with the corresponding spatial information and thereby representing the scanned object as a two-dimensional computer image wherein each image pixel is stored in a memory location uniquely determined by a positional coordinate relative to the planar tablet (see Abstract).

In addition, Wu et al disclosed the image processing or other types of multimedia applications, where a simple to use yet effective image scanning device to input the desired image data for a computer is required (col. 1, lines 53-56). The image scanning system which captures image data together with the spatial information simultaneously and thereupon a one-to-one mapping of the image data to the memory location in a computer can be achieved.

Comparing the combination of the disclosure of Mager et al in view of Wu et al and the rejected claims, a difference is that Wu **did**

not disclose the “electromagnetic induction sub-circuit for receiving the electromagnetic wave signal and generating a second image signal” and “image processing sub-circuit..., and said image processing sub-circuit can perform image processing function to generate an image showing signal according to said first image signal and said second image signal”. Wu did not disclose the **“first image signal” and “second image signal”** in the disclosure. The combination of the disclosure of Mager et al in view of Wu et al cannot teach the “image processing sub-circuit can perform image processing function to generate an image showing signal according to said first image signal and said second image signal” as the claim 11 recited. Thus, the combination of the disclosure of Mager et al in view of Wu et al cannot achieve the claims. Therefore, the rejection can be traversed.

The Examiner alleges that the combination of the disclosure of Mager et al in view of Wu et al, and further in view of Ritchey. Examiner is of the opinion that Ritchey teaches image transmitting sub-circuit comprising a serial interface.

Nevertheless, the combination of the Mager et al in view of Wu et al cannot achieve the claim. Because of the combination of the disclosure of Mager et al in view of Wu et al lacks of the step of **“image processing sub-circuit can perform image processing function to generate an image showing signal according to said first image signal and said second image signal”** and did not disclose **“said image processing sub-circuit can perform image processing function to generate an image showing signal**

according to said first image signal and said second image signal”.

Even if Ritchey discloses the transmitting sub-circuit comprises a serial interface, however, Ritchey cannot teach the steps as the claims recited. Thus, the rejection can be traversed.

The Examiner alleges that the combination of the disclosure of Mager et al in view of Wu et al, and further in view of Nanba. The Examiner is of the opinion that Nanba teaches wherein said serial interface comprises an universal serial bus.

Similarly, Nanba disclosed the serial interface comprises a universal bus which is a limitation in the recitation of the present invention. Nevertheless, Nanba did not teach the **“image processing sub-circuit can perform image processing function** to generate an image showing signal according to **“first image signal” that is generated by the “image sensing sub-circuit” and “second image signal” that is generated by an electromagnetic induction sub-circuit”**. Thus, the combination of the disclosure of Mager et al in view of Wu et al, and further in view of Nanba cannot achieve the claim. Therefore, the rejection can be traversed.

In addition, Examiner alleges that combination of the disclosure of Mager et al in view of Wu et al, and further in view of Fujioka. Examiner is of the opinion that Fujioka teaches first processor comprises a locus-detecting step to generate a plurality of locus data according to the electromagnetic wave signal.

Also, according to above response for the rejection of the

combination of the disclosure of Mager et al in view of Wu et al, the Mager et al in view of Wu et al lacks of disclosing the **“image processing sub-circuit can perform image processing function to generate an image showing signal according to “first image signal” that is generated by the “image sensing sub-circuit” and “second image signal” that is generated by an electromagnetic induction sub-circuit”**. Thus, even if Fujioka teaches a first processor comprises a “locus-detecting step to generate a plurality of locus data according to the electromagnetic wave signal”, nevertheless, the combination of the disclosure of Mager et al in view of Wu et al cannot achieve the present invention. Thus, the combination of Mager et al in view of Wu et al, and further in view of Fujioka cannot achieve the present invention.

Moreover, the Examiner alleges that Nanba teaches a processing method of a microprocessor of an image processing sub-circuit in the motionless-image processing system. However, Ritchey teaches wherein said plurality of image processing function comprises a broadcasting mode.

Nevertheless, the combination of the disclosure of Nanba in view of Ritchey lacks of disclosing the “displaying mode comprises an image-mixing step to form a mixed-image with said specific serial number”. Even if the CPU can control the whole PC as Nanba disclosed, Nanba did not disclose the mode as the “displaying mode comprises an image-mixing step...”. Furthermore, Nanba did not disclose the displaying mode definitely. Thus, the rejection can be traversed.

Also, Examiner alleges that combination of the disclosure of Nakashima in view of Dunton et al and Masuda et al can achieve the present invention. According to above mentioned for Nakashima, the response of Nakashima cannot anticipate the present invention is that the electric signal is converted from image signal and sound. Nevertheless, the signal is mixed by first digital image and second digital image as the present invention recited. As regards claim 47, the claim recites among its features "an image signal sub-circuit that is coupled with said image-sensor to receive and said image data generates a **first image signal**"; ... and "an electromagnetic-inducting sub-circuit with a second microprocessor that is, **so as to generate a second image signal**,...and said first microprocessor can form a **mixed-image according to said first image signal and said second image signal**". Nakashima discloses that electric signal is generated by image signal and sound, which differs from the present invention recited. Thus, either Dunton et al or Masuda et al cannot teach Nakashima to replace the sound signal with second image signal. Thus, the combination of the disclosure of Nakashima in view of Dunton et al and Masuda et al cannot achieve the present invention. Thus, the rejection can be traversed.

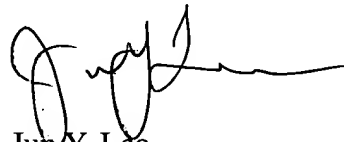
Thus, according to abovementioned, the independent claims 1, 11, 30, 42, and 47 can traverse the combination of the disclosure of reference that Examiner proposed. Thus, the all the rejections can be withdrawn.

Conclusion

In the light of the above amendments and remarks, Applicant respectfully submits that all pending Claims 1 through 68 as currently presented are in condition for allowance. Applicant has thoroughly reviewed the art cited but not relied upon by the Examiner. Applicant has concluded that these references do not affect the patentability of these claims as currently presented. Accordingly, reconsideration is respectfully requested.

This Amendment was prepared by Applicant and is being submitted without substantive change by the undersigned Attorney.

Respectfully submitted,



Jun Y. Lee

Registration #40,262

Dated: 5/14/2004

Suite 101
3458 Ellicott Center Drive
Ellicott City, MD 21043
(410) 465-6678